

Exhibit 2.G

EES Coke Battery LLC, A2A analysis in
support of Permit Application 51-08C,
(rev. Aug. 27, 2014)



Table C-1a: EES Coke PSD Analysis

BASELINE (Oct 2011-Sept 2013)							Baseline Actual Emissions (tpy)									
Fuel Use (MMBtu/yr)																
Emission Source	COG	BFG	Lean	Rich	100% COG	Total Fuel (MMBtu)	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC	H ₂ S	TRS/RSC	H ₂ SO ₄	CO
Battery																
Underfire Combustion	2,547,258	348,617	395,817	795,195	1,708,443	2,899,455	857	89	204	203	1,271	112.43	5.36	6.41	147	548.28
Pushing							5.10	5.01	6.31	6.31	17.87	0.88				39.39
EES Flare	1,347,578	0	0	0	1,347,578	1,347,578	505	57.27	75	74	676	23.58	2.55	3.25	58.22	128.02
Charging								0.04	0.09	0.09		0.12	8.24E-03		3.85E-05	0.06
Door Leaks							0.30	0.33	0.67	0.67	9.13	0.81	5.55E-02		2.59E-04	0.41
Topside Port Lid Leaks								1.44E-03	2.87E-03	2.87E-03		3.51E-03	2.39E-04		1.12E-06	1.76E-03
Standpipe & Offtake Leaks								4.05E-03	8.10E-03	8.10E-03		9.90E-03	6.75E-04		3.15E-06	4.95E-03
Soaking							0.20	3.05	3.05	3.05	20.15	1.22				0.41
Bypass Bleeder Flare							18.64	2.88	3.90	3.88	44.56		0.34			16.45
Quenching								186	18.23	11.16						
Coal/Coke Fugitives ²								31.91	9.79	1.82						
Total BAE							1,387	375	321	304	2,039	139	8.3	9.7	205	733
PROJECTED																
Fuel Use (MMBtu/yr)							Projected Actual Emissions (tpy)									
Emission Source	COG	BFG	Lean	Rich	100% COG	Total Fuel (MMBtu)	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC	H ₂ S	TRS/RSC	H ₂ SO ₄	CO
Battery																
Underfire Combustion	3,763,000	0	0	0	3,763,000	3,763,000	1,411	218	295	294	2,071	184	12.90	12.90	214	357
Pushing							11.21	6.30	7.91	7.91	42.38	1.33				50.06
EES Flare	1,618,715	0	0	0	1,618,715	1,618,715	607	93.89	127	126	891.5	79.32	5.55	5.55	92.27	154
Charging								0.08	0.17	0.17		0.23	1.54E-02		7.17E-05	0.11
Door Leaks							0.36	0.45	0.90	0.90	10.80	1.10	7.49E-02		3.50E-04	0.55
Topside Port Lid Leaks								6.42E-03	1.28E-02	1.28E-02		1.57E-02	1.07E-03		4.99E-06	7.85E-03
Standpipe & Offtake Leaks								1.17E-02	2.34E-02	2.34E-02		2.85E-02	1.95E-03		9.08E-06	1.43E-02
Soaking							0.32	4.75	4.75	4.75	31.37	1.90				0.63
Bypass Bleeder Flare							23.30	3.60	4.88	4.85	55.70		0.43			20.57
Quenching								220.10	21.57	13.21						
Coal/Coke Fugitives ²								15.94	5.68	1.55						
BFG (from Baseline)		348,617					1.18	1.86	1.86	1.86	14.25	0.00	0.08	0.18	1.62	51.32
Total PAE							2,055	565	470	455	3,117	268	19.0	18.6	308	635
COULD HAVE BEEN ACCOMMODATED (during baseline)																
Fuel Use (MMBtu/yr)							Projected without Project (tpy)									
Emission Source	COG	BFG	Lean	Rich	100% COG	Total Fuel (MMBtu)	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC	H ₂ S	TRS/RSC	H ₂ SO ₄	CO
Battery																
Underfire Combustion	2,850,000	0	0	0	2,850,000	2,850,000		165	224	222	1,570	140	8.43	8.43	162	
Pushing								6.06	7.60	7.60	40.73	1.28				
EES Flare ¹	2,531,715	0	0	0	2,531,715	2,531,715		147	199	197	1,394	124.05	7.49	7.49	144	
Charging								0.09	0.19	0.19		0.25	1.71E-02		7.99E-05	
Door Leaks								1.06	2.12	2.12	10.38	2.59	1.77E-01		8.24E-04	
Topside Port Lid Leaks								1.19E-01	2.37E-01	2.37E-01		2.90E-01	1.98E-02		9.23E-05	
Standpipe & Offtake Leaks								1.31E-02	2.63E-02	2.63E-02		3.21E-02	2.19E-03		1.02E-05	
Soaking								4.04	4.04	4.04	26.67	1.62				
Bypass Bleeder Flare								3.60	4.88	4.85	55.70		0.43			
Quenching								212	20.73	12.69						
Coal/Coke Fugitives ²								35.93	10.95	2.04						
Total COA Emissions								575	473	454	3,097	270	16.6	15.9	307	

¹ EES Flare was capable of accommodating (COA) up to 2,587,724 MMBtu per year based on highest month (Jan 2012) of 215,644 MMBtu/month x 12 months. COA is capped off based on the typical heat input requirement to the battery during the baseline period.² Coal/Coke Fugitives includes all material handling, storage, and roadway fugitive emissions.

	NO _x	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC	H ₂ S	TRS/RSC	H ₂ SO ₄	CO
Total Project	668	-9.38	-3.03	1.43	19.54	-1.46	2.49	2.72	1.62	-98
Sig Level	40	25	15	10	40	40	10	10/10	7	100



Table C-1b: EES Coke Sources Emissions Factors

EMISSION FACTORS															
BASELINE								EXCLUDED				PROJECTED			
Battery Underfire / Flare				Refer to "Baseline Fuel&Emissions" for monthly breakdown of EFs as applicable				Capable of Accommodating at Battery Underfire / Flare				Battery Underfire / Flare			
Pollutant	COG	BFG	Lean	Rich	100% COG	EF Unit	Emission Factor Basis	Pollutant	COG	EF Unit	Emission Factor Basis	Pollutant	COG	EF Unit	Emission Factor Basis
NO _x					0.75	lb/MMBtu	CEMS					NO _x	0.75		CEMS
PM			0.024	0.067	0.085	lb/MMBtu	Stack Test 2010 w/sulfates (DEQ derived); 2009	PM	0.116	lb/MMBtu	Michigan Rule 331	PM	0.116	lb/MMBtu	Michigan Rule 331
PM ₁₀			0.042	0.157	0.111	lb/MMBtu	Stack tests 2006 ¹ , 2012, 2009	PM ₁₀	0.157	lb/MMBtu	Underfire stack test 2012 - Rich	PM ₁₀	0.157	lb/MMBtu	Underfire stack test 2012 - Rich
PM _{2.5}			0.042	0.156	0.110	lb/MMBtu	Stack tests 2006 ¹ , 2012, 2009	PM _{2.5}	0.156	lb/MMBtu	Underfire stack test 2012 - Rich	PM _{2.5}	0.156	lb/MMBtu	Underfire stack test 2012 - Rich
SO ₂					1.004	lb/MMBtu	CEMS	SO ₂	1.102	lb/MMBtu	CEMS	SO ₂	1.102	lb/MMBtu	CEMS
CO					0.190	lb/MMBtu	Underfire Stack Test 2010					CO	0.190	lb/MMBtu	Underfire Stack Test 2010
VOC			0.014	0.098	0.035	lb/MMBtu	Stack tests 2010, 2012, 2009	VOC	0.098	lb/MMBtu	Underfire stack test 2012 - Rich	VOC	0.098		Underfire stack test 2012 - Rich
H ₂ S	varies	varies				gr/scf H ₂ S	Sampling analysis for H ₂ S	H ₂ S	2.07	gr/scf H ₂ S	Sampling analysis, H ₂ S (Aug'12)	H ₂ S	2.40	gr/scf H ₂ S	Sampling analysis for H ₂ S
TRS/RSC	varies	varies				gr/scf TRS	Sampling analyses for TRS	TRS/RSC	2.07	gr/scf TRS	Sampling analysis for H ₂ S (Aug. 2012) Assume TRS = H ₂ S	TRS/RSC	2.40	gr/scf TRS	Sampling analyses for TRS
H ₂ SO ₄			0.024	0.114	0.086	lb/MMBtu	Stack Tests 2010, 2012, 2009	H ₂ SO ₄	0.114	lb/MMBtu	Underfire stack test 2012 - Rich	H ₂ SO ₄	0.114	lb/MMBtu	Underfire stack test 2012 - Rich

¹ 2006 stack testing includes filterable PM only. Condensable PM from AP-42 Ch. 12.2 (Table 12.2-14) is added to account for condensable portion (Lean Gas).

Table C-1c: U.S. Steel BFG Flare Emission Factors

Emission Factors			
Pollutant	BFG	EF Unit	Emission Factor Basis
NO _x	0.61	lb/MMscf	USS MAERS
PM	0.96	lb/MMscf	USS MAERS
PM ₁₀	0.96	lb/MMscf	USS MAERS
PM _{2.5}	0.96	lb/MMscf	USS MAERS
SO ₂	7.36	lb/MMscf	USS MAERS
CO	26.50	lb/MMscf	USS MAERS
VOC	0.0	lb/MMscf	USS MAERS
H ₂ S	0.0391	lb/MMscf	Sampling analyses for BFG
TRS/RSC	0.07	gr/dscf	
H ₂ SO ₄	0.07	gr/dscf	